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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,727	03/04/2002	Shalom Levi	1268-083A	2222

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BROWDY AND NEIMARK, P.L.L.C.
624 NINTH STREET, NW
SUITE 300
WASHINGTON, DC 20001-5303

EXAMINER	
TRAN, SUSAN T	

ART UNIT	PAPER NUMBER
1615	

DATE MAILED: 06/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/086,727	LEVI ET AL.	
	Examiner	Art Unit	
	Susan T. Tran	1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *13 January 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,5-7,10-13,19-23,25,26 and 28-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,5-7,10-13,19-23,25,26 and 28-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/11/05 has been entered.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2, 5-7, 10-12, 19-23, 25, 28-31 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 2of U.S. Patent No. 6,413,506, in view of Kobayashi et al. US 4,909,986 and Pacifici et al. US 5,039,481. Although the conflicting claims are not identical, they are not patentably distinct from each other because the '506 patent claimed a method that uses a composition consisting essentially of one or more carboxylic acids in an amount sufficient to neutralize nitrogenous odor generating components in the excrement, and water soluble film forming polymers in quantities sufficient to form a solid film over the bulk of said excrement. The '506 patent does not disclose the claimed polymer and acids. Kobayashi teaches aqueous deodorant composition comprising water-soluble polymer having molecular weight higher than 15,000, perfumes, citric acid, and other additives (columns 1-2, and column 7, lines 56-620). The water-soluble polymer can be selected from nonionic, anionic, cationic, or amphoteric, including polyacrylic acid or polyacrylamide (columns 5-7, and examples). The aqueous deodorant composition can be applied by spraying onto liquid or solid selected from cattle raising farm, chicken farm, and livestock product, which has malodor and/or gives off malodors (column 12, lines 6-28). Pacifici teaches an ammonia scavenging composition using dispersing agent and acid in the claimed amounts. Thus, it would have been obvious to one of ordinary skill in the art to modify the composition of the '506 patent using the water soluble polymer and acids in view of the teachings of Kobayashi and Pacifici with the expectation of an aqueous deodorizing composition that can greatly reducing offensive odor and facilitate easy handling of the deodorized excrement.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 2, 5-7, 10-13, 19, 21-23, 25, 26 and 28-31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. It appears that applicant's specification does not provide support for the following limitations:

In claims 1 and 19, the limitation "a molecular weight which is sufficiently low so as to not prevent biological degradation thereof". Applicant's specification while discloses water soluble polymers of the claimed invention are biologically degradable, does not explicitly provide guidance that the polymers have a molecular weight which is sufficiently low so as to not prevent biological degradation.

Claims 21 and 23, the limitation "polymer is a low molecular weight polymer". Applicant's specification at page 3 discloses water-soluble polymers are polymers having molecular weight higher than 15,000, which includes an indefinite number of an upper limit. Accordingly, specification does not provide support for the limitation "low molecular weight polymer".

Claim 23, the limitation "reduce excrement pH to 4.6 *or less*". There are no showing or guidance in the specification of pH less than 4.6, which could include any thing less than 4.6, for example, 3.5, 3.8 or 4.1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 5-7, 10-12, 19-23, 25, 26 and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pacifici et al. US 5,039,481, in view of Saeki et al. US 5,780,547 or Meadus et al. US 4,158,648.

Pacifici teaches a method for reducing the amount of ammonia release into the air in a livestock by applying to the area an ammonia scavenging composition comprising 0.1-50% dispersing agent, and 0.1-25% polycarboxylic acid selected from citric acid, and oxalic acid (abstract; and column 3, lines 1-7). The composition further comprises 0.1-5% fragrance such as lemon (column 3, lines 22-25).

Pacifici does not teach the claimed polymer. Saeki teaches polyvinyl alcohol used as the dispersing stabilizer (column 3, lines 14-16). Meadus teaches polyvinyl alcohol as a dispersing agent (column 5, lines 6-8). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use polyvinyl alcohol as a dispersing agent in the ammonia scavenging composition of Pacifici,

because Saeki teaches polyvinyl alcohol has excellent properties as a dispersing stabilizer (column 1, lines 31-32), because Meadus teaches polyvinyl alcohol is a good dispersing agent (column 5, lines 7-8), and because Pacifici teaches the use of a dispersing agent or solubilizing agent.

Claims 1, 2, 5-7, 11, 19, 20, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. US 4,909,986.

Kobayashi teaches aqueous deodorant composition comprising water-soluble polymer having molecular weight higher than 15,000, perfumes, citric acid, and other additives (columns 1-2, and column 7, lines 56-620). The water-soluble polymer can be selected from nonionic, anionic, cationic, or amphoteric, including polyacrylic acid or polyacrylamide (columns 5-7, and examples). The aqueous deodorant composition can be applied by spraying onto liquid or solid selected from cattle raising farm, chicken farm, and livestock product, which has malodor and/or gives off malodors (column 12, lines 6-28).

The examiner notes the use of the transitional phrase "consisting essentially of" in claim 1. However, since the prior art composition has the same basic and novel characteristic (aqueous deodorant to remove malodors from animal farm), it is an applicant's burden to establish that other additives in the prior art composition are excluded from the claim by "consisting essentially of" language. See, e.g., PPG, 156 F.3d at 1355, 48 USPQ at 1355. Furthermore, even when an applicant contends that additional steps or materials in the prior art are excluded by the recitation of "consisting

essentially of," applicant has the burden of showing that the introduction of additional steps or components would materially change the characteristics of applicant's invention. *In re De Lajarte*, 337 F.2d 870, 143 USPQ 256 (CCPA 1964). See also Ex parte Hoffman, 12 USPQ2d 1061, 1063-64 (Bd. Pat. App. & Inter. 1989).

It is noted that the reference does not teach that the composition facilitating easy handling of said deodorized excrement recites in claim 21, however, the intended use of the claimed composition does not patentably distinguish the composition, per se, since such undisclosed use is inherent in the reference composition. In order to be limiting, the intended use must create a structural difference between the claimed composition and the prior art composition. In the instant case, the intended use does not create a structural difference, thus the intended use is not limiting. See *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967); *In re Otto*, 312 F.2d 937, 938, 136 USPQ 458, 459 (CCPA 1963).

Claims 1, 2, 5-7, 11, 19, 22, 25 and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. US 4,909,986, in view of Suzuki US 5,004,600.

Kobayashi is relied upon for the reason stated above. Kobayashi does not expressly teach the amount of the water-soluble polymer.

Suzuki teaches an aqueous composition comprising deodorizing agents comprising water-soluble polymer, including cellulose and polyvinyl alcohol (column 2, lines 5-10). The composition is useful for the treatment of air or other gases for the

removal of odors (column 1, lines 67 through column 2, line 1). The amount of the water-soluble polymer is from about 35 to about 65 parts by weight, or more preferably about 20 part by weight (column 2, lines 1-4, and table 1). Thus, it would have been obvious for one of ordinary skill in the art to modify the aqueous deodorizing composition of Kobayashi using the water-soluble and the amounts of water-soluble polymer in view of the teaching of Suzuki with the expectation of providing an aqueous deodorizing composition suitable to remove malodor in the environment.

It is noted that the cited references do not teach the pH of about 1.5. However, it is also noted that Kobayashi uses the claimed of amount of the same acidic agent, namely, citric acid (column 7, lines 56-60, and examples) to obtain an aqueous deodorizing composition suitable to remove malodor in cattle raising farm, chicken farm, or livestock product. Kobayashi also shows in example 56 shows the use of citric acid to adjust the pH of the composition. Furthermore, the examiner is unable to recognize the unexpected and/or unusual results in the particular pH value over the aqueous deodorant composition of Kobayashi. Accordingly, it is the position of the examiner that it would have been obvious for one of ordinary skill in the art to, by routine experimentation determine suitable pH level of the composition with the expectation of at least similar result.

Claims 11-13 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al., and Shimizu US 4,839,089.

Kobayashi is relied upon for the reasons stated above. The reference is silent as to the specific perfume, such as limonene.

Shimizu teaches deodorant composition comprising perfume selected from alpha-pinene, terpenoid, and limonene (column 6, lines 34-36). Thus, it would have been *prima facie* obvious for one of ordinary skill in the art to prepare Kobayashi's deodorant composition using limonene as perfume in view of the teaching of Shimizu, because the references teach the use of perfume to reduce malodors. The expected result would be an aqueous deodorant composition that exhibits a deodorizing effect on liquids and solids, which give off odors.

Response to Arguments

Applicant's arguments filed 10/11/05 have been fully considered but they are not persuasive.

The Declaration under 37 CFR 1.132 filed 01/13/06 is insufficient to overcome the rejection of claims 1, 2, 5-7, 10-13, 19-23, 25, 26 and 28-30 based upon the 103(a) rejections over Kobayashi as set forth in the last Office action because: the Declaration refers only to the system described in the specification and not to the individual claims of the present invention. Thus, there is no showing that the objective evidence of nonobviousness is commensurate in scope with the claims. See MPEP § 716. The Declaration compared polyacrylamide of Kobayashi verses the claimed polyvinyl alcohol to conclude that the polyacrylamide of Kobayashi does not have the same property of the claimed invention. However, polyacrylamide is also one of the claimed polymers

(see claim 1, line 19), had applicant compared the polyacrylamide of Kobayashi and the claimed polyacrylamide polymer, would they have different properties? The Declaration showed only one example of 5% polyvinyl alcohol, and states that the 5% PVA polymer solution is a typical Levi concentration, shows a clear and strong barrier effect that inhibits the passage of the triethylamine. However, that typical concentration that shows a clear and strong barrier effect is not in the claims. The present independent claims recite "at least 0.1%" of the polymer. The narrower independent claims recite 1.5% and 2.5%. Applicant has not shown 0.1% polymer solution that would also result in a clear and strong barrier. In view of the foregoing, when all of the evidence is considered, the totality of the rebuttal evidence of nonobviousness fails to outweigh the evidence of obviousness.

Applicant argues that the limitation "a molecular weight which is sufficiently low so as not to cause biological degradation thereof" is inherent in the examples and implicit in applicant's specification. Applicant pointed to the observations made after 6 months in example 3 at page 8. However, the properties disclosed in page 8 do not provide any guidance for one of ordinary skill in the art to make and use the invention, because the disclosure at page 3, 4th paragraph, discloses polymers having molecular weight higher than 15,000. This disclosure includes polymers having molecular weight higher than 15,000, for example, 100,000 or 300,000 or 500,000, which are not "low" molecular weight polymers. Accordingly, the 112, first paragraph rejection is maintained.

Applicant argues that Kobayashi teaches using only a very small quantity of water-soluble polymer (applicant refers to column 9, lines 49+). Accordingly, the small quantity of polymer required by Kobayashi is far less than what is the minimum necessary according to the present invention. Thus, there is no motivation for one skilled in the art to increase the quantity of polymer by 1000 times. In response to applicant's argument, it is noted that Kobayashi teaches the amount of polymer ranges from 0.05 to 50 ppm *as* ***solids*** *in the aqueous medium* (see column 9, lines 49-51). Kobayashi in the examples disclose an aqueous solution of polymer in the range of from 1000 ppm (0.1%) (see column 22, and examples 54 and 55). Broad limitation "at least 0.1% of at least one polymer" in the instant claims allows the interpretation of 0.1% of polymer in aqueous solution. The claims do not require the claimed amount of polymer as solid in the aqueous medium. In any event, differences in concentration will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration is critical. Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum by routine experimentation. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). Applicant has not showed any criticality in the claimed concentration, instead, applicant argues that the claimed amount is critical to form a film wrapping the excrement, while Kobayashi concerns water soluble polymers for flocculation. However, although Kobayashi does not explicitly teach the composition capable of forming a film on the excrement, there is no criticality, as well as unexpected and/or unusual results being seen, because Kobayashi teaches aqueous deodorant composition using similar water-

soluble polymer such as amphoteric, including polyacrylic acid or polyacrylamide (columns 5-7, and examples). The aqueous deodorant composition can be applied by spraying onto liquid or solid selected from cattle raising farm, chicken farm, and livestock product, which has malodor and/or gives off malodors (column 12, lines 6-28). Applicant's attention is called to column 11, lines 4-6, lines 38-44, Kobayashi discloses the deodorant has a higher deodorizing effect than known deodorants.

Applicant argues that Kobayashi does not teach the water-soluble having low molecular weight. However, applicant has not established criticality in the low molecular weight polymer. Especially when Kobayashi teaches the use of similar polymer, such as polyacrylic acid or polyacrylamide polymer. Applicant's specification discloses polymers having molecular weight of higher than 15,000 permits an indefinite number of upper limit molecular weight including the polymer taught by Kobayashi. Accordingly, the 103(a) rejection over Kobayashi is maintained.

Applicant argues that the proposed combination of Kobayashi and Suzuki would not have been obvious because using the Suzuki polymers would violate the requirement of Kobayashi, and using a greater quantity than the maximum of 50 ppm permitted by Kobayashi would also violate Kobayashi's requirement. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art.

See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In the instant case, Suzuki teaches an aqueous composition comprising deodorizing agents comprising water soluble polymer, including cellulose and polyvinyl alcohol (column 2, lines 5-10). The composition is useful for the same purpose as Kobayashi's requirement, *e.g.* for the treatment of air or other gases for the removal of odors (column 1, lines 67 through column 2, line 1). The amount of the water-soluble polymer is from about 35 to about 65 parts by weight, or more preferably about 20 part by weight (column 2, lines 1-4, and table 1). Therefore, it would have been obvious for one skilled in the art to, by routine experimentation determine/modify suitable polymer and suitable amount of polymer to obtain the same results.

Applicant argues that Shimizu has not been cited to make up for the deficiencies of Kobayashi, and indeed does not do so. Therefore, even if the proposed combination were obvious, it would have reach any of applicants' claims. In response to applicant's argument, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references.

Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Applicant argues that Dodd is far from the present invention. It discloses an aqueous composition adapted for use on the skin and hair. Applicant uses transitional phrase "consisting essentially of" to exclude any meaningful quantity of the essential uncomplexed cyclodextrin of Dodd. The 103(a) rejection over Dodd et al. has been withdrawn.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan T. Tran whose telephone number is (571) 272-0606. The examiner can normally be reached on Monday through Thursday 6:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on (571) 272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

S. Tran
Examiner
Art Unit 1615